

## **CLAIMS**

### ***LISTING OF THE CLAIMS:***

This listing of the claims will replace all prior versions and listings of claims in the Application.

1-24. (Cancelled)

25. (Newly Added) A system for modeling a sound field produced by a sound source that generates a radiating sound field that comprises predetermined parameters, the system comprising:

N transducers, arranged to at least partially surround the sound source, for capturing the sound field and generating N signals that correspond to the captured sound field;

means for modeling the sound field based on at least some of the N signals, including selected ones of the predetermined parameters; and

means for selectively modifying one or more parameters of selected ones of the N signals to produce a modified sound field.

26. (Newly Added) The system of claim 25, further comprising driver means for receiving N signals corresponding to the modified sound field and driving a reproduction of the modified sound field.

27. (Newly Added) The system of claim 26, wherein the driver means is operable to selectively modify one or more parameters of selected ones of the N signals that correspond to the modified sound field.
28. (Newly Added) The system of claim 26, wherein the driver means is operable to independently modify one or more parameters of the selected ones of the N signals that correspond to the modified sound field.
29. (Newly Added) The system of claim 25, wherein the means for selectively modifying is operable to independently modify one or more parameters of the selected ones of the N signals.
30. (Newly Added) The system of claim 25, further comprising storing means for storing the modeled sound field.
31. (Newly Added) The system of claim 25, further comprising storing means for storing the modified sound field.
32. (Newly Added) The system of claim 26, further comprising storing means for storing the modified sound field, wherein the driver means receives the N signals corresponding to the modified sound field from the storing means.

33. (Newly Added) The system of claim 25, wherein the means for selectively modifying is operable to modify one or more parameters of the selected ones of the N signals based on at least one of a user preference, a loudspeaker compatibility, a predetermined module, and a preferred output arrangement.
34. (Newly Added) The system of claim 28, wherein the driver means is operable to modify one or more parameters of the selected ones of the N signals corresponding to the modified sound field based on at least one of a user preference, a loudspeaker compatibility, a predetermined module, and a preferred output arrangement.
35. (Newly Added) The system of claim 25, wherein the means for selectively modifying is operable to modify one or more parameters of the selected ones of the N signals based on at least one of a recording environment and a playback environment.
36. (Newly Added) The system of claim 28, wherein the driver means is operable to modify one or more parameters of the selected ones of the N signals corresponding to the modified sound field based on at least one of a recording environment and a playback environment.

37. (Newly Added) A method for modeling a sound field generated by a sound source that generates a radiating sound field that comprises one or more predetermined parameters, the method comprising:
- capturing the sound field using N transducers;
  - generating N signals that correspond to the captured sound field;
  - modeling the sound field based on at least some of the N signals, including selected ones of the predetermined parameters; and
  - modifying one or more parameters of selected ones of the N signals to produce a modified sound field.
38. (Newly Added) The method of claim 37, further comprising:
- receiving N signals corresponding to the modified sound field; and
  - driving a reproduction of the modified sound field based on the received N signals.
39. (Newly Added) The method of claim 38, further comprising selectively and independently modifying one or more parameters of selected ones of the received N signals that correspond to the modified sound field.
40. (Newly Added) The method of claim 37, further comprising storing the modeled sound field.

41. (Newly Added) The method of claim 37, further comprising storing the modified sound field.
42. (Newly Added) The method of claim 37, wherein selectively modifying one or more parameters of the selected ones of the N signals comprises independently modifying one or more parameters of the selected ones of the N signals.
43. (Newly Added) The method of claim 37, wherein modifying one or more parameters of the selected ones of the N signals comprises modifying one or more parameters of the selected ones of the N signals based on at least one of a user preference, a loudspeaker compatibility, a predetermined module, and a preferred output arrangement
44. (Newly Added) The method of claim 39, wherein modifying one or more parameters of the selected ones of the received N signals corresponding to the modified sound field comprises modifying one or more parameters of the selected ones of the received N signals corresponding to the modified sound field based on at least one of a user preference, a loudspeaker compatibility, a predetermined module, and a preferred output arrangement.
45. (Newly Added) The method of claim 37, wherein modifying one or more parameters of the selected ones of the N signals comprises modifying one or

more parameters of the selected ones of the N signals based on at least one of a recording environment and a playback environment.

46. (Newly Added) The method of claim 39, wherein modifying one or more parameters of the selected ones of the received N signals corresponding to the modified sound field comprises modifying one or more parameters of the selected ones of the N signals corresponding to the modified sound field based on at least one of a recording environment and a playback environment.